

STAT-S 301 — Business Statistics

Course Web Page:	Canvas
Homework Program	Pearson MyLab Statistics or MyStatLab (Access through Canvas)
Text:	Donnelly. <i>Business Statistics</i> . 2nd Edition (eBook available in MyStatLab)
Required software:	Microsoft Excel (Mac users: use bootcamp, or something equivalent, to install Windows and use Microsoft Excel, or see https://support.microsoft.com/en-us/kb/2431349 for information on acquiring Data Analysis Toolpak for Excel for Mac. Note that it is included in <i>Excel 2016 for Mac</i> , which is available to you for free download at https://iuware.iu.edu/Mac/title/3128 as a part of <i>Office 365</i> .)

Office Hours: You can attend any S301 instructor's office hours, available here:
<http://tinyurl.com/S3010fficeHours>

Course Objectives:

This is an introductory course in statistical methods for business majors. By the end of the course, you should be able to do the following individually or as part of a team:

- Explain basic stat concepts including measures of central tendency, dispersion, and correlation
- Organize and summarize data by using descriptive statistics, tables, and graphs
- Understand the Central Limit Theorem and its importance in Statistics
- Make inferences about a population based on sample data using point and interval estimates
- Understand the reasoning behind hypothesis testing, z/t -tests, and linear regression
- Apply and interpret z - and t -tests in a business context
- Apply and interpret simple and multiple linear regression analysis in a business context
- Develop decision-making skills by basing decision upon the outcome of statistical tests
- Use basic statistical tools and concepts to analyze statistical problems encountered in I-CORE
- Interpret statistical results generated from Excel.

Grading:

Grades will be a weighted average of the following components: Homework, Electronic Questions(Class Participation), Quizzes/Case Studies (Chapter Assessments), and Exams.

Quiz	5%	First Exam	15%
Electronic Questions	5%	Second Exam	20%
Homework	20%	Final Exam	25%
Case Study	10%		

The grade cut-offs are given by:

90.00–92.99	A-	93.00–96.99	A	≥ 97.00	A+
80.00–82.99	B-	83.00–86.99	B	87.00–89.99	B+
70.00–72.99	C-	73.00–76.99	C	77.00–79.99	C+
60.00–62.99	D-	63.00–66.99	D	67.00–69.99	D+
< 60.00	F				

These cut-offs may be adjusted in your favor (as a class) at the end of the semester. The instructor reserves the right to give +/- grades when considered appropriate.

Grades are not given, they are **earned** based on satisfactory performance according to these criteria. There are no other methods for earning grades. There is no “rounding”. Do the work, earn good grades.

Course Description and Policies:

• General

- The prerequisite is MATH M118 or equivalent.
- You are expected to attend all classes. You will receive zero points for any missed activity in class (electronic questions, worksheets, case studies, etc), whether the absence is justified or not. Since emergencies always happen, some scores will not be considered in your grade calculations, as explained in detail below.
- Active participation is a fundamental part of the class. Your engagement in the topics we discuss will be a key component of the learning process.

• Quizzes

- A syllabus quiz is designed to encourage you to read this syllabus and understand the course policy well in the first two weeks. It is worth 10 points and due the Friday of the second week.
- The pre-class quiz is designed to encourage you to read the textbook and/or lecture slides before class. It will be given before each chapter, starting from Chapter 2.
- Each pre-class quiz will be available 48 hours before the lecture of a new chapter, and close at class time. You have one hour to complete it.

- Each pre-class quiz will consist of several multiple choice questions answered in Canvas. Each question is worth 1 point.
- You will have two attempts on each pre-class quiz. Some questions might change on a different attempt.
- Your lowest quiz score will be dropped.

- **Electronic Questions (EQ)**

- Both the Data Collection Survey (due in Canvas the first Friday) and electronic questions are counted as your class participation grades.
- Follow the instructions in Canvas, to register for Top Hat. Then put the Top Hat app on your phone or tablet.
- Electronic questions will be given throughout the semester.
- Grading: Correct answers will receive 3 points, incorrect answers will receive 2 points, no answer receives 0 points.
- Weeks 1 and 2 are a test period and grades posted will only be used to check that everything works appropriately.
- It is your responsibility to check that your scores from clicker are correctly recorded in your Canvas account. Report without delay any issues encountered.
- Starting from week 3, there are **NO** excuses for missed electronic questions. Any missed class results in missed electronic questions, regardless of the excuse.
- Make-ups are not required, but must take place in another S301 section. **If you would like to attend another section of S301, you must provide your rightful instructor with evidence of your need.**
- Grades will be uploaded on a daily basis. Your three (3) days with the lowest EQ scores will be dropped, out of approximately 15-25 days of EQs. Save these for unavoidable conflicts.
- If you are caught “signing in” another student or entering EQ answers for anyone other than yourself, you will both receive zeros for the clicker portion of this course and be reported for to the dean’s office for academic misconduct, at a minimum.

- **Worksheets**

- You will have worksheet problems to practice in and out of class throughout the semester, at least once per week.
- Your worksheet will NOT be collected or graded.

- **Weekly Homeworks (HW)**

- These assessments will be completed in MyStatLab and due on Fridays at midnight.
- If you submit your homework late but before the next major exam, you will receive 80% of points earned.

- You have three attempts on each homework question to get the correct answer. If you find any question confusing, the best course of action is to practice it using the help section of MyStatLab, and then retake the assessment. If you still find the question difficult, please ask for help in instructors' office hours, TAs' help sessions, or labs, or post your questions on the Discussion board in Canvas.
- Your lowest score will be dropped.

• Case Studies

- You will work on one case study throughout the semester.
- You will be randomly assigned in a group of 4 students, with whom you will work for the entire semester in and out of class.
- One laptop is required, at least, for each group. You will need Excel for some data analysis problems.
- You may use textbook, notes, laptop (any resources).
- There will be four scheduled lectures for Excel review and in-class help with case studies (see Canvas/Calendar).
- A draft report will be due after the first three in-class case study help and a final report will be due at the end of the semester to demonstrate your group's work on the data analysis.
- All students in the same group will receive the same score.
- Three draft reports will be graded on completeness and the final report will be graded on correctness.
- You will rate each others' participation and contribution at the end of the semester. Students with low rates will receive a reduction in their case study grades.
- You can participate in a case study presentation for extra credit.

• Exams

- Exams have an Excel portion completed on your laptop, and a multiple choice portion completed on a Scan-Tron.
- Exams are closed book, closed notes. A formula sheet will be provided for each exam.
- One laptop is required for the Excel portion.
- If a laptop is unavailable, notify your instructor no later than the end of the first week. We will arrange a seat in the lab for you.
- No make-up exams will not be given.
- In case of a **justified** and **documented** emergency for the first or second exam, the final exam will weigh more to include the weight of the missed exam.
- Unexcused absences from exams will result in a score of 0.

- In case of a **justified** and **documented** emergency for the final exam, the student will receive an incomplete “I” grade only if her/his standing in class before the exam is of a passing grade, otherwise the student will receive an “F.”
 - The midterm exams are on **Friday, Feb 16, 5:30pm-7pm** and **Friday, Mar 30, 5:30pm-7pm**, in a location to be announced later in the semester.
 - The final exam is on **Friday, May 4, 5-7pm**, in a location to be announced later in the semester.
- **Extra Credit**
 - An additional 0.5% will be added to your final grade for completing an anonymous Midterm Survey in Canvas in the middle of the semester.
 - There will be an extra credit opportunity if your case study group would like to present your work at the end of the semester. An additional extra credit up to 1.5% will be assigned based on your performance.
- **Required Material and Software:**
 - Microsoft Excel capable of running the free Data Analysis Toolpak add-in.
 - MyStatLab.
 - A calculator (cannot be a graphing calculator).
- **Distractions**
 - Do not show up late for class. It is not only distracting but also disrespectful towards classmates and the instructor.
 - Please refrain from texting and playing on cellphones while the instructor is lecturing and keep cellphones/electronics out of sight.
 - Do not leave class early unless you inform the instructor, in person, prior to the beginning of class.
- **Course Communication**
 - Any questions about how to understand the material for homework or exams should be posted on the Canvas discussion board. That way, other students who no doubt have the same issue will be able to see the response. Furthermore, both the TA and the instructor will be able to see the question and answer it as quickly as possible (though see below).
 - You are encouraged to come to instructors’ office hours, TAs’ help sessions Tue-Thur afternoons, and Friday labs.
 - Emails regarding grading issues should be sent to TAs, and cc’ed to instructors, through Canvas inbox.
 - The instructor will reply to your email within 24 to 48 hours. The instructor cannot guarantee that any email sent outside of business hours (M–F, 9am–5pm) will be read until business hours resume.

Rights and Responsibilities:

Rights and responsibilities for students are listed and explained in the IU Code of Student Rights, Responsibilities, and Conduct (<http://www.iu.edu/~code/code/index.shtml>). Students have the responsibility to be informed of the policies and procedures within the community of Indiana University. Please review sections on academic misconduct, religious holidays, and code of ethics. If you have any concerns or questions, please contact the instructor.

Note: *Academic Misconduct*. As a student at IU, you are expected to adhere to the standards and policies detailed in the Code of Student Rights, Responsibilities, and Conduct (Code). When you submit an assignment with your name on it, you are signifying that the work contained therein is yours, unless otherwise cited or referenced. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged. All suspected violations of the Code will be reported to the Dean of Students and handled according to University policies. Sanctions for academic misconduct may include a failing grade on the assignment, reduction in your final course grade, and a failing grade in the course, among other possibilities. If you are unsure about the expectations for completing an assignment or taking a test or exam, be sure to seek clarification beforehand.

Note: *Note Selling*. Several commercial services have approached students regarding selling class notes/study guides to their classmates. Selling the instructors notes/study guides in this course is not permitted. Violations of this policy will be reported to the Dean of Students as academic misconduct (violation of course rules). Sanctions for academic misconduct may include a failing grade on the assignment for which the notes/study guides are being sold, a reduction in your final course grade, a failing grade in the course, among other possibilities. Additionally, you should know that selling a faculty members notes/study guides individually or on behalf of one of these services using IU email, or via Canvas may also constitute a violation of IU information technology and IU intellectual property policies and additional consequences may result.

Note: *Students with disabilities*. The Code states that It is the responsibility of students with documented physical or learning disabilities seeking accommodation to notify their course directors and the relevant campus office that deals with such cases in a timely manner concerning the need for such accommodation (part I section G in the Code: Right to Accommodation for Individuals with Disabilities). If you have any concerns or questions, please contact the instructor.